

SYSTEM AND METHOD FOR TWO CHANNEL FREQUENCY OFFSET  
ESTIMATION OF OFDM SIGNALS

Abstract of the Disclosure

An orthogonal frequency division multiplexed (OFDM) receiver achieves improved frequency synchronization by generating a fine frequency offset of an OFDM packet with a two-channel frequency offset estimation scheme. Concurrent autocorrelations are performed with training symbols delayed by one and two durations of the training symbols. The respective correlation outputs are integrated over one and a half durations and one half duration to generate phase shift estimates. The phase shift estimates are weighted and combined to generate the fine frequency offset estimate which is used to rotate the phase of OFDM data symbols prior to performing a Fast Fourier Transform (FFT) on the data symbols.

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